

Purchase Order Receipt Listing

Wednesday, March 16, 2016 1:07:12 PM

All amounts are calculated in domestic currency.

All Vendors PO ID PO31667 All Receipt Dates All Line Item Types
All Item ID/GL/WOs All Rec. Employees All Currencies
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M/ Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MIRB Qty/ MIRB Reject Qty	Book Amt
Vendor ID \ Vendor Name VU-TW/M001 TW Metals											
PO31667	1	No	M304TR0.500W.035 f		3/17/2016	3/16/2016	200.0000		0.0000	0	\$0.00
USD			304 RD Tube .500 x f .035W		200.0000	PLOU01			0.0000	0	
			m134504								
	2	No	M6061T6T0.3125W.058		3/17/2016	3/16/2016	108.0000		0.0000	0	\$0.00
			ALUM TUBE .3125 f .058w		100.0000	PLOU01			0.0000	0	
			m134504								
	3	No	M6061T6T0.375W.058		3/17/2016	3/16/2016	144.0000		0.0000	0	\$0.00
			6061-T6 RD Tube f .375 x .058W		140.0000	PLOU01			0.0000	0	
			m134504								
	4	No	M6061T6T0.500W.058		3/17/2016	3/16/2016	48.0000		0.0000	0	\$0.00
			6061-T6 RD Tube f .500 x .058W		40.0000	PLOU01			0.0000	0	
			m134504								
	5	No	M6061T6T1.000W.0615		3/17/2016	3/16/2016	48.0000		0.0000	0	\$0.00
			6061T6 RD TUBE f 1.00 x .065w		40.0000	PLOU01			0.0000	0	
			m134504								
	6	No	71401-45		3/17/2016	3/16/2016	1.0000		0.0000	0	\$0.00
			PROCUREMENT QUALITY CLAUSES		1.0000	PLOU01			0.0000	0	
			m134504								

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M/ Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MIRB Qty/ MIRB Reject Qty	Book Amt
Total Received Quantity: Total Qty to Inspect (PO U/M): Total Reject Quantity: Total Receipt Value: Total Balance Due Quantity:											549.0000 0.0000 0.0000 \$0.00 0.0000



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 80768141

FROM: CHIC

PAGE 1

CUST NUMBER: 1203820
SOLD TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
CANADA

NET WGT:

65.757 REQ.DATE: 03/17/16 CONFIRMED
SHIP TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
ONTARIO CANADA

CN K6A 1K7

CN K6A 1K7

SALESPERSON: DONNA SMALLEY
TERMS: NET 30 DAYS
F.O.B.: SHIPPING POINT
CUST ORD NO.: PO31667

SHIP BY: 03/11/16
VIA: COMMON CARRIER
FREIGHT: PREPAID
RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION

0001 36449 SMLS CD 304/L A269 1/2 OD X .035 WA

ORD QTY
200.000 FT

INVOICE QTY
200.000 FT

SHIPPED QTY
200.000 FT

WT
34.752

PCS
10

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR
PO:49334354 HT:YX1504564 PC: 10
MLT:CHINA MFG:CHINA

CUSTOMER QTY:
SLB/CL:- Expiration Date: 0/00/00
UOM

0002 41723 D6061-T6 5/16 OD X .058 WA

ORD QTY
108.000 FT

INVOICE QTY
108.000 FT

SHIPPED QTY
108.000 FT

WT
5.897

PCS
9

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR
PO:49324038 HT:32704387 PC: 8
MLT:UNITED STATES MFG:UNITED STATES
PO:49324038 HT:32704387 PC: 1
MLT:UNITED STATES MFG:UNITED STATES

CUSTOMER QTY:
SLB/CL:281022 Expiration Date: 0/00/00
CUSTOMER QTY: UOM
SLB/CL:281022 UOM

0003 41952 D6061-T6 3/8 OD X .058 WA

ORD QTY
144.000 FT

INVOICE QTY
144.000 FT

SHIPPED QTY
144.000 FT

WT
9.763

PCS
12

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR
PO:49338877 HT:34881464 PC: 12
MLT:UNITED STATES MFG:UNITED STATES

CUSTOMER QTY:
SLB/CL:315630 Expiration Date: 0/00/00
CUSTOMER QTY: UOM

8/16-03-16

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 80768141

FROM: CHIC

PAGE 2

CUST NUMBER: 1203820
SOLD TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
CANADA

CN K6A 1K7

65.757 REQ.DATE: 03/17/16 CONFIRMED
SHIP TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
ONTARIO CANADA

CN K6A 1K7

SALESPERSON: DONNA SMALLEY
TERMS: NET 30 DAYS
F.O.B.: SHIPPING POINT
CUST ORD NO.: PO31667

SHIP BY: 03/11/16
VIA: COMMON CARRIER
FREIGHT: PREPAID
RELEASE NO.:
RECEIVING PHONE:
WIDTH LENGTH

LINE ITEM DESCRIPTION

0004 42276 D6061-T6 1/2 OD X .058 WA

ORD QTY
48.000 FT

INVOICE QTY
48.000 FT

SHIPPED QTY
48.000 FT

12 FT ML

WT
4.545

PCS
4

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR
PO:49338163 HT:34800931 PC: 4
MLT:UNITED STATES MFG:UNITED STATES

Expiration Date: 0/00/00
CUSTOMER QTY:
SLB/CL:314330 UOM

0005 43284 D6061-T6 1 OD X .065 WA

ORD QTY
48.000 FT

INVOICE QTY
48.000 FT

SHIPPED QTY
48.000 FT

12 FT ML

WT
10.800

PCS
4

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR
PO:49332930 HT:F001901760001 PC: 4
MLT:UNITED STATES MFG:UNITED STATES

Expiration Date: 0/00/00
CUSTOMER QTY:
SLB/CL:218321 UOM

BROKERS KUEHNE AND NAGEL LTD

AREA	TYPE OF PKG	PKGS	PACK INFO	GRS	WEIGHT	WIDTH	LENGTH	HGHT
YRC	CRTN STRAP TO BOARD	1.000			67.000	250.0000	5.5000	5
YRC	REDDICRATE	1.000			48.000	150.0000	4.0000	5

THANK YOU FOR THIS ORDER

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O'Neal High-Performance Metals Group



Packing
Slip

ORDER NO.: 80768141

FROM: CHIC

PAGE 3

CUST NUMBER: 1203820

NET WGT:

65.757 REQ.DATE: 03/17/16 CONFIRMED

SOLD TO:

SHIP TO:

DART AEROSPACE LTD

DART AEROSPACE LTD

1270 ABERDEEN ST

1270 ABERDEEN ST

HAWKESBURY ON

HAWKESBURY ON

CANADA

ONTARIO CANADA

CN K6A 1K7

CN K6A 1K7

SALESPERSON:

DONNA SMALLEY

TERMS:

NET 30 DAYS

F.O.B.:

SHIPPING POINT

CUST ORD NO.:

PO31667

SHIP BY:

03/11/16

VIA:

COMMON CARRIER

FREIGHT:

PREPAID

RELEASE NO.:

RECEIVING PHONE:

WIDTH

LENGTH

LINE ITEM DESCRIPTION

2.000

115.000

BY: AG

RT 000-

UNLOAD TYPE: NONE SPECIFIED

SP16-03-16

DATE SHIPPED _____

DATE FILLED _____

THANK YOU FOR THIS ORDER

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PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



Packing
Slip

ORDER NO.: 80768141 FROM: CHIC PAGE 4

CUST NUMBER: 1203820	NET WGT: 65.757	REQ.DATE: 03/17/16	CONFIRMED
SOLD TO:	SHIP TO:		
DART AEROSPACE LTD	DART AEROSPACE LTD		
1270 ABERDEEN ST	1270 ABERDEEN ST		
HAWKESBURY ON	HAWKSURY ON		
CANADA	CN K6A 1K7	ONTARIO CANADA	CN K6A 1K7
SALESPERSON:	DONNA SMALLEY	SHIP BY:	03/11/16
TERMS:	NET 30 DAYS	235 TUBEWAY	
F.O.B.:	SHIPPING POINT	CAROL STREAM	IL 60188
CUST ORD NO.:	PO31667		
VIA:	COMMON CARRIER		
FREIGHT:	PREPAID		
RELEASE NO.:			
RECEIVING PHONE:			

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for coniferous non-manufactured wood packing material"

Authorized Test Report Clerk *Amairaxi Salvan* Date: 3/11/16

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL REVIEW.
<http://www.twmetals.com/invoice-terms.html>



A COMPANY OF MUELLER INDUSTRIES

PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 168215**

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO. 49324038 LINE 001	CUST. ORD. NO. 281022	PRECISION TUBE P/N 24A031250580005
SOLD: TW METALS TO 27 ENGLEHARD DRIVE MONROE TWP, NJ 08831 UNITED STATES	SHIP: TW METALS TO 27 ENGLEHARD DRIVE MONROE TWP, NJ 08831 UNITED STATES	

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3000 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P ASTM-B-210-12 AMS-WW-T-700/6B LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3125 +.0030 -.0030 ID WALL .0580 +.0040 -.0040	3300 FT	01/07/15

MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	46,473	41,218	15		

DESTRUCTIVE TESTS

Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES

NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

CHEMICAL COMPOSITION									
ALLOY: 6061		HEAT:		TRACEABILITY #: 32704387					
				RAW MATL VENDOR: PT45444 - Kaiser Aluminum					
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			Rem.
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	
OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL									

OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2002/95/EU).

Melted and Manufactured in USA
QMS Registered to ISO 9001: 2008

By: Curt Oster
Art Onalits
QA Manager

01/07/15
Page: 1 of 1

KAISER ALUMINUM FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CUSTOMER PO NUMBER: PT45444		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/-0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 317897	LINE ITEM: 001	SHIP DATE: 11/25/2014	KAISER LOT NUMBER: 50751-284	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 10618.000 LB	QUANTITY: 1933.000 PCS	B/L NUMBER: 004598	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND
50751-284	0001	0001	19.5	8.7	19.8	N/A	N/A	N/A
50751-284	0001	0002	19.6	9.2	19.6	N/A	N/A	N/A
50751-284	0001	0003	19.3	8.7	20.3	N/A	N/A	N/A
50751-284	0001	0004	19.4	9.0	18.8	N/A	N/A	N/A
50751-284	0001	0005	19.7	9.1	19.3	N/A	N/A	N/A
50751-284	0001	0006	19.7	8.8	18.2	N/A	N/A	N/A
50751-284	0001	0007	19.5	9.3	19.9	N/A	N/A	N/A
50751-284	0001	0008	19.8	9.2	19.2	N/A	N/A	N/A
50751-284	0001	0009	19.2	8.6	19.9	N/A	N/A	N/A
50751-284	0001	0010	19.4	9.1	18.9	N/A	N/A	N/A
50751-284	0001	0011	19.7	8.7	21.4	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F73891	.60	.30	.23	.05	.97	.06	.06	.02	.00	.00	.00	.02	.05
F73885	.60	.30	.23	.05	.97	.06	.05	.02	.00	.00	.00	.01	.02
F73887	.57	.30	.22	.05	.98	.07	.11	.02	.00	.00	.00	.01	.02

Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97 (R07) TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILITIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

Plant Serial: 00011377
Kaiser Order Number: 317897
Line Item: 001

**KAISER
ALUMINUM
FABRICATED PRODUCTS**

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph

C

KAISER ALUMINUM

FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49332930-1		CUSTOMER PART NUMBER: 43284		PRODUCT DESCRIPTION: Seamless Tube/Pipe	
KAISER ORDER NUMBER: 218321	LINE ITEM: 001	SHIP DATE: 06/06/2015	KAISER LOT NUMBER: F00190176	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 1793.000 LB	QUANTITY: 665.000 PCS	B/L NUMBER: 218933	DIAM/DAE/THKNS:	WIDTH:	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00190176	0001	1	44.7	42.8	15.5	N/A	N/A	N/A
F00190176	0002	1	44.4	42.3	15.0	N/A	N/A	N/A
F00190176	0003	1	45.5	43.7	15.5	N/A	N/A	N/A
F00190176	0004	1	44.9	42.7	15.5	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D74575	.60	.32	.21	.04	.96	.10	.05	.03	.00	.00	.00	.01	.02

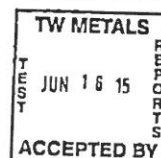
Applicable Requirements:

Description: OD: 1.0000"; Wall: 0.0650"; Round @
AMS-4082P AMS-WW-T-700/6B ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS-4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.

DAS
14 16/03/20
0-09

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA
(DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5
TRADE AGREEMENTS).



Plant Serial: 00019519
Kaiser Order Number: 218321
Line Item: 001

inf

**KAISER
ALUMINUM
FABRICATED PRODUCTS**

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

*Best in
Class*

CERTIFIED TEST REPORT

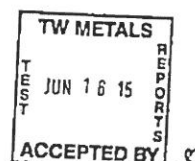
<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Linda Adkins, Quality Manager

Linda Adkins





A COMPANY OF MUELLER INDUSTRIES

PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 168215**

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO. 49324038 LINE 001	CUST. ORD. NO. 281022	PRECISION TUBE P/N 24A031250580005
--	--------------------------	---------------------------------------

SOLD: TW METALS
TO 27 ENGLEHARD DRIVE
MONROE TWP, NJ 08831
UNITED STATES

SHIP: TW METALS
TO 27 ENGLEHARD DRIVE
MONROE TWP, NJ 08831
UNITED STATES

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3000 FT	METAL - 6061 ALUM TEMPER T6 SPEC - AMS 4082P ASTM-B-210-12 AMS-WW-T-700/6B LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3125 +.0030 -.0030 ID WALL .0580 +.0040 -.0040	3300 FT	01/07/15

MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	46,473	41,218	15		

DESTRUCTIVE TESTS

Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES

NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

ALLOY:	6061	HEAT:	TRACEABILITY #:	32704387					
RAW MATL VENDOR: PT45444 - Kaiser Aluminum									
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			Rem.
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	

OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2002/95/EU).

Melted and Manufactured in USA
QMS Registered to ISO 9001: 2008

By: Art Onaitis
Art Onaitis
QA Manager

01/07/15

Page: 1 of 1

KAISER ALUMINUM FABRICATED PRODUCTS

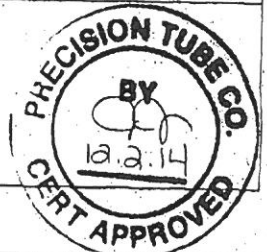
Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CUSTOMER PO NUMBER: PT45444		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/O LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 317897	LINE ITEM: 001	SHIP DATE: 11/25/2014	KAISER LOT NUMBER: 50751-284	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 10818.000 LB	QUANTITY: 1933.000 PCS	B/L NUMBER: 004598	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND
50751-284	0001	0001	19.5	8.7	19.8	N/A	N/A	N/A
50751-284	0001	0002	19.6	9.2	19.6	N/A	N/A	N/A
50751-284	0001	0003	19.3	8.7	20.3	N/A	N/A	N/A
50751-284	0001	0004	19.4	9.0	18.8	N/A	N/A	N/A
50751-284	0001	0005	19.7	9.1	19.3	N/A	N/A	N/A
50751-284	0001	0006	19.7	8.8	18.2	N/A	N/A	N/A
50751-284	0001	0007	19.5	9.3	19.9	N/A	N/A	N/A
50751-284	0001	0008	19.8	9.2	19.2	N/A	N/A	N/A
50751-284	0001	0009	19.2	8.6	19.9	N/A	N/A	N/A
50751-284	0001	0010	19.4	9.1	18.9	N/A	N/A	N/A
50751-284	0001	0011	19.7	8.7	21.4	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F73891	.60	.30	.23	.05	.97	.06	.06	.02	.00	.00	.00	.02	.05
F73885	.60	.30	.23	.05	.97	.06	.05	.02	.00	.00	.00	.01	.02
F73887	.57	.30	.22	.05	.98	.07	.11	.02	.00	.00	.00	.01	.02

Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97 (R07) TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILITIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

Plant Serial: 00011377
Kaiser Order Number: 317897
Line Item: 001

**KAISER
ALUMINUM
FABRICATED PRODUCTS**

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph



A COMPANY OF MUELLER INDUSTRIES

PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 170637

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO. 49338163 LINE 001	CUST. ORD. NO. 314330	PRECISION TUBE P/N 24A050000580003
SOLD: TW METALS TO 235 TUBEWAY CAROL STREAM, IL 60188 UNITED STATES	SHIP: TW METALS TO 235 TUBEWAY CAROL STREAM, IL 60188 UNITED STATES	

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3168 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P WW-T-700/6F AM-2 AMS-WW-T-700/6B ASTM-B-210-12 LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .5000 +.0030 -.0030 ID WALL .0580 +.0040 -.0040	3288 FT	10/28/15

Stamp: TW METALS, TEST, OCT 30 15, ACCEPTED

MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	47,196	41,520	18		

DESTRUCTIVE TESTS

Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES

NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

ALLOY: 6061 HEAT: TRACEABILITY #: 34800931
RAW MATL VENDOR: PT54356 - Kaiser Aluminum

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	Rem.

OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing, and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Manufactured in the USA
QMS Registered to ISO 9001: 2008

By: Art Onaitis
Art Onaitis
QA Manager

10/28/15
Page: 1 of 1

KAISER ALUMINUM FABRICATED PRODUCTS

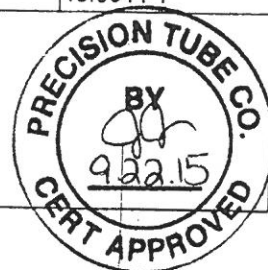
Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CUSTOMER PO NUMBER: PT54356		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/-0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 319276	LINE ITEM: 001	SHIP DATE: 09/18/2015	KAISER LOT NUMBER: 50751-305	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 15557.000 LB	QUANTITY: 2834.000 PCS	B/L NUMBER: 004845	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT	BEND
50751-305	0001	0001	18.4	7.2	27.1	N/A	N/A	N/A
50751-305	0001	0002	17.2	5.6	26.3	NA N/A	N/A	N/A
50751-305	0001	0003	17.7	6.0	27.5	NA N/A	N/A	N/A
50751-305	0001	0004	18.3	6.2	26.8	NA N/A	N/A	N/A
50751-305	0001	0005	18.6	6.4	26.6	NA N/A	N/A	N/A
50751-305	0001	0006	19.0	6.5	26.7	NA N/A	N/A	N/A
50751-305	0001	0007	18.0	6.8	27.5	NA N/A	N/A	N/A
50751-305	0001	0008	18.5	6.5	28.4	NA N/A	N/A	N/A
50751-305	0001	0009	18.4	6.1	27.2	NA N/A	N/A	N/A
50751-305	0001	0010	18.6	6.6	27.8	NA N/A	N/A	N/A
50751-305	0001	0011	18.4	6.7	25.9	NA N/A	N/A	N/A
50751-305	0001	0012	18.8	4.5	27.5	NA N/A	N/A	N/A
50751-305	0001	0014	16.9	5.0	28.0	NA N/A	N/A	N/A
50751-305	0001	0015	19.1	6.7	27.5	NA N/A	N/A	N/A
50751-305	0001	0016	18.1	7.2	27.2	NA N/A	N/A	N/A
50751-305	5001	0013	17.8	5.8	26.5	NA N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F75051	.61	.30	.23	.06	.95	.10	.04	.03	.00	.00	.00	.01	.02
F75052	.59	.28	.20	.05	.99	.08	.03	.02	.00	.00	.00	.01	.01
F82108	.60	.34	.24	.05	.97	.08	.06	.03	.00	.00	.00	.01	.02
F75054	.60	.30	.19	.06	.94	.08	.04	.03	.00	.00	.00	.01	.02
F75056	.58	.32	.21	.05	.96	.09	.04	.03	.00	.00	.00	.01	.02

Applicable Requirements:



KAISER
ALUMINUM
FABRICATED PRODUCTS

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Chen

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97(R07) TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been
inspected and tested and found in conformance with applicable specifications forming a part of the
description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on
Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph



PUFA™

Producer of Premium Stainless Steel Seamless Tubes

MILL TEST REPORT

Purchaser.: TW METALS-Carol Stream				Certificate No.: 15-11-98					
Contract No.: TWM P.O.No.: M49334354				Date of Issue.: 2015.11.5					
Commodity: Stainless Steel Seamless Tubes		Specifications: ASTM A213-15/ASME SA213-13/ASTM A269-14e1 EAW							
Process: Cold Drawn				Delivery Condition: OD Polished to 240 Grit					
Steel Grade	Heat Number	Lot Number	Dimensions		Quantity				
					Pieces	Feet			
TP304/TP304L	YX1504-564	9-51	1/2" x 0.035" x 20'		850	17,000			
Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.014	0.63	0.031	0.003	0.34	18.18	8.06	-	-
Product Analysis	0.020	0.60	0.035	0.003	0.33	18.08	8.40	-	-
Mechanical Properties									
Test Item	Elongation (% in 2")		Tensile Strength (PSI) Rm			Yield Strength (PSI) Rp / 0.2%			
Requirements	≥35		≥75,000			≥30,000			
Test Results	61/62		92,000/93,000			36,000/37,000			
Test Item	Reduction of Area Z (%)	Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test		
Requirements	-	HRB≤80	-	22%	e=0.09	-	-		
Test Results	-	76/78	-	Passed	Passed	-	OK		
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection				
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance			
Test Results	Passed	-	-	OK	OK	OK			

ISO 9001:2008 Certified by Intertek 110703068

PED Certified by SZUTEST 2195-PED-1526002

Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
- (2) All tubes tested per ASTM A1016-14
- (3) Materials is NACE MR0103-2007 compliant (per Section 2.5)
- (4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)
- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

CANNOT CERTIFY COMPLIANCE
FAR BAA / DFARS BAA / FAR TAA

DAS
14
9-30

16/03/20



By:

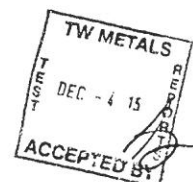
James Shi

James Shi / Manager

Quality Control Department

We hereby certify that this report is true and correct.

Shanghai Pufa Stainless Steel Pipe Factory
No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China





PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 171000

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO. 49338877 LINE 001	CUST. ORD. NO. 315630	PRECISION TUBE P/N 24A037500580006
SOLD: TW METALS TO 235 TUBEWAY CAROL STREAM, IL 60188 UNITED STATES	SHIP: TW METALS TO 235 TUBEWAY CAROL STREAM, IL 60188 UNITED STATES	

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3000 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P AMS-WW-T-700/6B ASTM-B-210-12 LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3750 +.0030 -.0030 ID WALL .0580 +.0040 -.0040	3024 FT	12/09/15

TW METALS
TEST DEC 14 15
ACCEPTED BY [Signature]

MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	44,243	38,948	19		

DESTRUCTIVE TESTS

Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES

NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

ALLOY: 6061	HEAT:	TRACEABILITY #: 34881464
		RAW MATL VENDOR: pt54356 - Kaiser Aluminum
Min	Si 0.40 Fe 0.15 Cu 0.15 Mn 0.80 Mg 0.04 Cr 0.04 Zn 0.04 Ti 0.15 Al Rem.	
Max	0.80 0.70 0.40 0.15 1.20 0.35 0.25 0.15	

OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL The following additional impurity maximum limits shall apply: Bi, 1ppm(0.0001%); Cd, 1ppm(0.0001%); Fe, 10 Mn, 0.5ppm(0.0005%); Ni, 10ppm(0.0010%); Se, 3ppm (0.0003%); Ag, 25 ppm(0.0025%); S, 15ppm(.0015%); Sn, 2ppm(.0002%); Zn, 1ppm(.0001%).

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Manufactured in the USA
QMS Registered to ISO 9001: 2008

By: [Signature]
Art Onaitis
QA Manager

12/09/15
Page: 1 of 1

CMB

KAISER ALUMINUM

FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

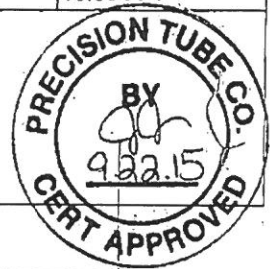
Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

TW METALS
TEST REPORTS
DEC 14 15
ACCEPTED BY

CUSTOMER PO NUMBER: PT54356		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/-0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 319276	LINE ITEM: 001	SHIP DATE: 09/18/2015	KAISER LOT NUMBER: 50751-305	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 15557.000 LB	QUANTITY: 2834.000 PCS	B/L NUMBER: 004845	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT	BEND
50751-305	0001	0001	18.4	7.2	27.1	N/A	N/A	N/A
50751-305	0001	0002	17.2	5.6	26.3	NA N/A	N/A	N/A
50751-305	0001	0003	17.7	6.0	27.5	NA N/A	N/A	N/A
50751-305	0001	0004	18.3	6.2	26.8	NA N/A	N/A	N/A
50751-305	0001	0005	18.6	6.4	26.6	NA N/A	N/A	N/A
50751-305	0001	0006	19.0	6.5	26.7	NA N/A	N/A	N/A
50751-305	0001	0007	18.0	6.8	27.5	NA N/A	N/A	N/A
50751-305	0001	0008	18.5	6.5	28.4	NA N/A	N/A	N/A
50751-305	0001	0009	18.4	6.1	27.2	NA N/A	N/A	N/A
50751-305	0001	0010	18.6	6.6	27.8	NA N/A	N/A	N/A
50751-305	0001	0011	18.4	6.7	25.9	NA N/A	N/A	N/A
50751-305	0001	0012	18.8	4.5	27.5	NA N/A	N/A	N/A
50751-305	0001	0014	16.9	5.0	28.0	NA N/A	N/A	N/A
50751-305	0001	0015	19.1	6.7	27.5	NA N/A	N/A	N/A
50751-305	0001	0016	18.1	7.2	27.2	NA N/A	N/A	N/A
50751-305	5001	0013	17.8	5.8	26.5	NA N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F75051	.61	.30	.23	.06	.95	.10	.04	.03	.00	.00	.00	.01	.02
F75052	.59	.28	.20	.05	.99	.08	.03	.02	.00	.00	.00	.01	.01
F82108	.60	.34	.24	.05	.97	.08	.06	.03	.00	.00	.00	.01	.02
F75054	.60	.30	.19	.06	.94	.08	.04	.03	.00	.00	.00	.01	.02
F75056	.58	.32	.21	.05	.96	.09	.04	.03	.00	.00	.00	.01	.02

Applicable Requirements:

Plant Serial: 00012844
Kaiser Order Number: 319276
Line Item: 001

KAISER ALUMINUM

FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97(R07) TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

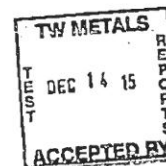
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

J. Ames



Plant Serial: 00012844
Kaiser Order Number: 319276
Line Item: 001

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304TR.500X.035
DATE: 16/03/20

PO / BATCH NO: 31667/134504

MATERIAL CERT REC'D YES
QUANTITY RECEIVED 200'
QUANTITY INSPECTED 200'
QUANTITY REJECTED _____

THICKNESS ORDERED RT.500X.035U
THICKNESS RECEIVED RT.500X.035U
SHEET SIZE ORDERED _____
SHEET SIZE RECEIVED _____

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL	<input checked="" type="radio"/> Y	N	
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT MATERIAL	<input checked="" type="radio"/> Y	N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>16/03/20</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 1606IT6T0.3125W.058

PO / BATCH NO: 31667/134504

DATE: 16/03/20

MATERIAL CERT REC'D yes

QUANTITY RECEIVED 108'

QUANTITY INSPECTED 108'

QUANTITY REJECTED _____

THICKNESS ORDERED RT.3125X.058W

THICKNESS RECEIVED RT.3125X.054W

SHEET SIZE ORDERED _____

SHEET SIZE RECEIVED _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>16/03/20</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606/T6T, 375W, 058
 DATE: 16/03/20

PO / BATCH NO: 31667/134504

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 144'
 QUANTITY INSPECTED: 144'
 QUANTITY REJECTED: _____

THICKNESS ORDERED: RT, 375X, 0584
 THICKNESS RECEIVED: RT, 375X, 0584
 SHEET SIZE ORDERED: _____
 SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORROSION	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input type="radio"/> N <input checked="" type="radio"/>	
CORRECT MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="radio"/> N <input checked="" type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="radio"/> N <input checked="" type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK RECORD RESULTS BELOW				
	HRC	HRB	DUR A	DUR D
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 14 9-33</u> DATE: <u>16/03/20</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6 TO, SDX.058
 DATE: 16/03/20

PO / BATCH NO. 31667/134504

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 48'
 QUANTITY INSPECTED: 48'
 QUANTITY REJECTED: _____

THICKNESS ORDERED: RT. SDX.058
 THICKNESS RECEIVED: RT. SDX.054
 SHEET SIZE ORDERED: _____
 SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK RECORD RESULTS BELOW				
	HRC	HRB	DUR A	DUR D
TYPE OF MATERIAL				
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>16/03/20</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 11606116 T1.000X.065

PO / BATCH NO: 31667/134504

DATE: 16/03/20

MATERIAL CERT REC'D: yes

QUANTITY RECEIVED: 48'

QUANTITY INSPECTED: 48'

QUANTITY REJECTED: _____

THICKNESS ORDERED: RT 1.000X.065

THICKNESS RECEIVED: RT 1.000 X.0606

SHEET SIZE ORDERED: _____

SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if required)

INSPECTED BY: _____

SIGNED OFF BY: _____

DATE: 16/03/20

DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO31667**

Purchase Order Date 3/10/2016

PO Print Date 3/10/2016

Page Number 1 of 3

Order From :

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

VU-TWM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

MAR 10 2016

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M304TR0.500W.035 ✓ MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING AS PER ASTM A213 OR AMSE SA213 OR ASTM A269	304 RD Tube .500 x .035W	3/17/2016 Yes 3/17/2016		200.00 ✓ f	\$1.50	\$300.00
Line Total:							\$300.00
2	M6061T6T0.3125W.058 ✓ MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR ASTM B241	ALUM TUBE .3125 x .058w	3/17/2016 Yes 3/17/2016		100.00 recu 108f Sp16-03-16.	\$2.50	\$250.00
Line Total:							\$250.00

Note:

3/10/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO31667**

Purchase Order Date 3/10/2016

PO Print Date 3/10/2016

Page Number 2 of 3

Order From :

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

VU-TWM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 585 768 5600

Ship To Contact**Ship To Phone****Ship Via:****Ship Acct:****Buyer**

Chantal Lavoie

Customer POID**Customer Tax #**

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

3	M6061T6T0.375W.058	✓	6061-T6 RD Tube .375 x.058W	3/17/2016	140.00	\$2.15	\$301.00
				Yes 3/17/2016	f 144 F.		

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Line Total:

\$301.00

4	M6061T6T0.500W.058	✓	6061-T6 RD Tube .500 x.058W	3/17/2016	40.00	\$1.75	\$70.00
				Yes 3/17/2016	f 48 F.		

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Line Total:

\$70.00

Note:

3/10/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO31667**

Purchase Order Date 3/10/2016

PO Print Date 3/10/2016

Page Number 3 of 3

Order From :

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

VU-TWM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

5	M6061T6T1.000W065	6061T6 RD TUBE 1.00 x .065w	3/17/2016	40.00	\$2.96	\$118.40
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Yes
3/17/2016

f 48 ft.

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Line Total: \$118.40

6	71401-45	PROCUREMENT QUALITY CLAUSES	3/17/2016	1.00	\$0.00	\$0.00
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No

3/17/2016

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

SP 16-03-16

Line Total: \$0.00

PO Total: \$1,039.40

CL

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 2

Change Date: 3/10/2016